Geometry Name_____

Review of Algebra I -- Problem Set #1

Date_____

Solve each equation.

1) $-5b - 3b = 8$

2) $0 = 5v + 7v$

3) $-3x + 4x = -6$

4) $135 = 9(a + 10)$

5) $-22 = -2(n - 5)$

6) $-14 = -6 + \frac{v}{2}$

Simplify. Your answer should contain only positive exponents.

7) $2vu^{-3} \cdot u^3v^4$

8) $yx^{-2} \cdot 4x^0y^2$

9) $3u^3v^2 \cdot 4u^{-4}$

10) $4x^0y^2 \cdot 4y^4$

11) $4x \cdot xy^{-2} \cdot 3x^0y^{-3}$

Simplify each expression.

12) $(6m^3 - 6m + 2) + (3m + 2 - m^3)$

13) $(7r + 6r^4 + 8r^3) - (7r + 2 - 6r^4)$

14) $(6x^3 + 4x^4 + x) - (3x^4 + 6x - 5x^3)$

Find each product.

15) $(3x + 5)(4x - 2)$

16) $(8r + 6)(4r - 1)$

Name each polynomial by degree and number of terms.

17) 9

18) $2p^4$

19) $-3b^6 + 7$

20) $9n^3$